

REMARKS

The Office Action mailed January 4, 2005, has been carefully reviewed and the following remarks and amendment have been made in consequence thereof.

Subsequent to entry of the foregoing amendment, Claims 6-20 will be pending in this application. Claims 6-18 are rejected. Claims 1-5 have been canceled. Claims 19 and 20 are newly added.

In response to the election requirement set forth in the Office Action, Applicant elected, with traverse, for prosecution in this application all claims of Group II as identified in the Office Action. Claims 6-20 are in the elected claim group.

The restriction requirement is traversed because the inventions set out by the claims in Groups I and II clearly are related. It is believed that a thorough search and examination of either claim group would be relevant to the examination of the other group. In addition, requirements for restriction are not mandatory under 35 U.S.C. Accordingly, reconsideration of the restriction requirement is requested.

The rejection of Claims 12 and 13 under 35 U.S.C. 112, second paragraph is respectfully traversed. Specifically, Claim 12 has been amended to recite "said arm that is deflectable..." Claim 13 depends from Claim 12. Accordingly, Applicants respectfully request that the section 112 rejection to Claims 12 and 13 be withdrawn.

The rejection of Claims 6, 11, and 14 under 35 U.S.C. 102(b) as being anticipated by Ittleson et al. (U.S. Pat. No. 6,082,291) is respectfully traversed.

Ittleson et al. a fixture 14 for use in applying a material to a surface 16 or 18 of a shroud 12 coupled to a rotor blade 10. Specifically, fixture 14 includes a base 54 having a passage 56 formed therein. Passage 56 includes an opening 58 that is sized to receive a dovetail portion 22 of rotor blade 10. A pair of arms 128 are slidably coupled to base 54 and extend radially inward towards opening 58. A pad 48 extends from a radially inner end of each arm 128. Each pad 48 is contoured to enable pad 48 to engage a radially inner or flow surface 42 of shroud 12 after blade 10 is coupled to base 54. The contoured shape of pad 48 facilitates pads 48 limiting an amount of material deposited on each shroud flow surface 42. Notably, when the rotor blade is secured within the base, the pads do not contact nor mask

any of the edges of the shroud portion of the rotor blade assembly, but rather only contact the radially inner flow surface of the shroud portion.

Claim 6 recites an apparatus for clamping and locating shroud segments during a spraying operation, wherein the apparatus comprises “a base...a pair of elongated arms... , each comprising a first end and an opposite second end...a clamping element coupled to each said arm second end, said clamping element for securing a shroud segment to said base, such that at least one edge of the shroud segment is positioned against and masked by said clamping element....”

Ittleson et al. do not describe nor suggest an apparatus as recited in Claim 6. Specifically, Ittleson et al. do not describe nor suggest an apparatus that includes a clamping element that is coupled to each arm for securing a shroud segment to said base, such that at least one edge of the shroud segment is positioned against and masked by the clamping element. Rather, in contrast to the present invention, Ittleson et al. describe a fixture that includes pads that are positioned against a radially inner flow surface of the shroud portion. Accordingly, Claim 6 is submitted to be patentable over Ittleson et al.

Claim 11 depends from independent Claim 6. When the recitations of Claim 11 are considered in combination with the recitations of Claim 6, Applicants submit that Claim 11 is likewise patentable over Ittleson et al.

Claim 14 recites an apparatus for clamping gas turbine engine shroud segments, wherein the apparatus comprises “a base...a pair of arms comprising opposite first and second ends...a clamping element coupled to each said arm second end, said clamping element configured to clamp the shroud segments to said base such that at least one edge of each shroud segment is positioned against and masked by said clamping element.”

Ittleson et al. do not describe nor suggest an apparatus as recited in Claim 14. Specifically, Ittleson et al. do not describe nor suggest an apparatus that includes a clamping element that is coupled to each arm second end and is configured to clamp the shroud segments to said base, such that at least one edge of each shroud segment is positioned against and masked by the clamping element. Rather, in contrast to the present invention, Ittleson et al. describe a fixture that includes pads that are positioned against a radially inner

flow surface of the shroud portion. Accordingly, Claim 14 is submitted to be patentable over Ittleson et al.

For the reasons set forth above, Applicants request that the Section 102 rejection of Claims 6, 11, and 14 be withdrawn.

The rejection of Claims 6-10 and 14-18 under 35 U.S. 102(b) as being anticipated by Bergmann et al. (U.S. Pat. No. 5,196,062) is respectfully traversed.

Bergmann et al. describe an apparatus 1 used to hold bearing shell blanks 2 adjacent one another during a coating process in a vacuum chamber. Apparatus 1 is hexagonal shaped such that six work piece holding pairs 3 may be coupled thereto. Each holding pair 3 includes a work piece holding part 5 and a cooling body part 6. Holding part 5 is generally U-shaped and includes a concave semi-cylindrical surface 32 that is contoured to substantially match a desired contour of the shell blanks 2. Blanks 2 are pressed against surface 32 during the coating process.

Claim 6 recites an apparatus for clamping and locating shroud segments during a spraying operation, wherein the apparatus comprises “a base...a pair of elongated arms... , each comprising a first end and an opposite second end...a clamping element coupled to each said arm second end, said clamping element for securing a shroud segment to said base, such that at least one edge of the shroud segment is positioned against and masked by said clamping element....”

Bergmann et al. do not describe nor suggest an apparatus as recited in Claim 6. Specifically, Bergmann et al. do not describe nor suggest an apparatus that includes a clamping element that is coupled to each arm for securing a shroud segment to said base, such that at least one edge of the shroud segment is positioned against and masked by the clamping element. Rather, in contrast to the present invention, Bergmann et al. describe a fixture wherein bearing blanks are pressed against a contoured bearing surface. Accordingly, Claim 6 is submitted to be patentable over Bergmann et al.

Claims 7-10 depend from independent Claim 6. When the recitations of Claims 7-10 are considered in combination with the recitations of Claim 6, Applicants submit that Claims 7-10 are likewise patentable over Bergmann et al.

Claim 14 recites an apparatus for clamping gas turbine engine shroud segments, wherein the apparatus comprises “a base...a pair of arms comprising opposite first and second ends...a clamping element coupled to each said arm second end, said clamping element configured to clamp the shroud segments to said base such that at least one edge of each shroud segment is positioned against and masked by said clamping element. ”

Bergmann et al. do not describe nor suggest an apparatus as recited in Claim 14. Specifically, Bergmann et al. do not describe nor suggest an apparatus that includes a clamping element that is coupled to each arm second end and is configured to clamp the shroud segments to said base, such that at least one edge of each shroud segment is positioned against and masked by the clamping element. Rather, in contrast to the present invention, Bergmann et al. describe a fixture wherein bearing blanks are pressed against a contoured bearing surface. Accordingly, Claim 14 is submitted to be patentable over Ittleon et al.

Claims 15-18 depend from independent Claim 14. When the recitations of Claims 15-18 are considered in combination with the recitations of Claim 14, Applicants submit that Claims 15-18 are likewise patentable over Bergmann et al.

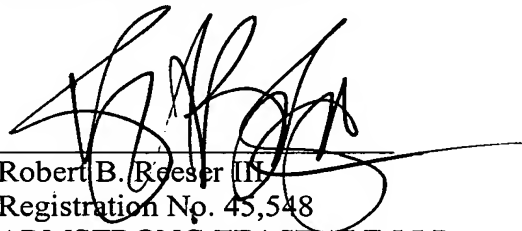
For the reasons set forth above, Applicants request that the Section 102 rejection of Claims 6-10 and 14-18 be withdrawn.

Claims 12 and 13 were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 12 and 13 depend from independent Claim 6 which is submitted to be in condition for allowance. Accordingly, when the recitations of Claims 12 and 13 are considered in combination with the recitations of Claim 6, Applicants submit that Claims 12 and 13 are likewise in condition for allowance.

With respect to newly added Claims 19 and 20, Claims 19 and 20 depend from independent Claim 14 which is submitted to be in condition for allowance. Accordingly, when the recitations of Claims 19 and 20 are considered in combination with the recitations of Claim 14, Applicants submit that Claims 19 and 20 are likewise in condition for allowance.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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